

**Marine Endangered Species Monitoring Program
Trawling Project Summary
Freeport Shipping Channel
Emergency Channel Deepening**

US Army Corps of Engineers
Bean Dredging, LLC
24 December 2005 – 7 February 2006



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ABSTRACT

*A twenty-four-hour-per-day relocation project was conducted onboard the trawling vessel F/V Miss Adrienne working for East Coast Observers, Incorporated for endangered and threatened sea turtles during the channel maintenance of the Freeport shipping channel. Species targeted included Loggerhead (*Caretta caretta*), Kemp's Ridley (*Lepidochelys kempii*), Green (*Chelonia mydas*), and Leatherback (*Dermochelys coriacea*) sea turtles. This summary focuses on statistics and scope of work conducted onboard the F/V Miss Adrienne.*

INTRODUCTION

Sea turtle trawling was initiated at 100% coverage (one trawler) by the US Army Corps of Engineers (USACE), Galveston District. Trawling conducted was concurrent to the dredging required within sections 1 through 5, from the sea buoy inward and including the jetties.

SCOPE OF WORK

This relocation-trawling project in Freeport, Texas was contracted by the USACE. The party agreeing to provide relocation-trawling services (ECO, inc.) was responsible for one trawler, and aboard the trawler, ECO, Inc. was to be responsible for providing and maintaining two nets, equipment, trained personnel, and a trawl supervisor approved through The National Marine Fisheries Service (NMFS). Equipment and operational standards were maintained in excellent order, and open communication was maintained at all times between all parties involved to achieve the best results possible. All parties agreed on trawling speed, length of tow, number of drags in segment and length of dredging / trawling during the segment. The trawler was required to drag approved nets ahead of the Dredge Stuyvesant at all times with exception of jetty area, where restricted working space prohibited both vessels from working in the same area for safety reasons.

Pre-dredge trawling commenced at 1500 hours on 24 December 2005, and continued until the dredge notified the vessel that it could not begin due to sea conditions. Trawling resumed officially at 0815 hours on 27 December 2005, and continued until project completion on 07 February 2006. There were several weather delays, and trawling was stopped on routine occasions for fueling, groceries, and water intake. Trawling was conducted with repeating 30 minute tows, and pertinent data was recorded by the trawling supervisor for each tow on separate standardized log sheets. Data included begin tow and end tow times, depth of water, trawl speed during mid tow and at end of tow, latitude and longitude (obtained by GPS equipment aboard trawler), water temperature, air temperature and various sea conditions (wave height, wind speed, weather conditions), biological species bycatch, number of turtles captured (if applicable) on each tow and in which net (port or stbd.), and any relevant comments or subsequent incidents. All original tow sheets were received by USACE personnel aboard the dredge, and were

transferred there by the launch boat on a daily basis. Copies of individual data sheets will be available by request.

All turtles if captured for relocation would be identified, measured, tagged, and released 5 miles outside of the channel and project area. This data would be recorded separately on a tagging log sheet.

All applicable permits for handling endangered and threatened species were obtained from the appropriate federal and state agencies, and all licensing is current. Observers and trawl supervisors are unconditionally approved through NMFS.

RESULTS

<p>Project Date: 24 December 2005 – 07 February 2006</p> <p>Project Length: 46 days</p> <p>Coverage Level: Level 4 (100% coverage using one trawling vessel)</p> <p>Total Number of Takes: 2 dredge takes (<i>Chelonia mydas</i>)</p> <p>Number of Tows: 664 tows, 30 minute concurrent tows</p> <p>Number of Turtles Captured: 0</p> <p>Species: N/A</p> <p>Capture Rate: N/A</p> <p>Number of Recaptures: N/A</p> <p>Water Temperature: 12 - 14 degrees Celsius</p>

DISCUSSION

There were no turtles captured aboard the trawling vessel, though amounts of bycatch confirmed all operations aboard the *F/V Miss Adrienne* were as normal. By-catch indicated that nets were on the bottom during all tows, yet unexplainably there were incidents involving endangered species aboard the *M/V Dredge Stuyvesant*. Two takes aboard the dredge Stuyvesant were recorded during the project. Both were juvenile Green turtles. The first occurred on 17 January 2006, and appeared in moderate health, very much alive. It was transferred to Shanna Kethan, a representative from NOAA fisheries services. Further contact with NOAA indicated that recovery was most likely, and release would ultimately result. The second take occurred on 02 February 2006, and though the Green turtle was alive, more traumatic damage had resulted. The carapace was separated from the body near the tail and cracked, and both eyes appeared to be bleeding and damaged. Incident reports were filed and given to USACE representative on project site.

Most recent information indicates this second turtle has recovered and will be released in spring.

Tows were concurrent and ongoing at a rate of 30 minutes per tow. Various by-catch was also logged on each tow sheet, and notable species were photographed and measured. A full species bycatch listing is attached to this report, along with photographs of each turtle captured and released. Bycatch listings are provided to link species relative abundance on both trawlers to the area worked.

BYCATCH LISTING

(Common Name)

(Scientific Name)

Ray / Skate

Clear Nosed Skate
Cow Nosed Ray
Southern Ray
Spiny Butterfly Ray

Raja eglanteria
Rhinoptera bonasus
Dasyatis Americana
Gymnura altavela

Jellies / Stars / Crabs

Cannonball Jelly
Lion Mane Jelly
Brittle Star
Blue Crab
Spider Crab

Stromalophus melaqris
Cyanea capillata
Ophionereis schayeri
Callinectes sapidus
Mithrax spinosissimus

Fish

Black Drum
Barjack
Cutlassfish
Croaker
Lesser Amberjack
Lookdown
Minkfish
Moonfish
Palometa
Pompano
Red Drum
Spanish Mackerel
Spiny Box Fish

Pogonias cromis
Caranx ruber
Trichiurus lepturus
Micropogon undulates
Seriola fasciata
Selene brevoortii
Menticirrhus focaliger
Vomer setapinnis
Trachinotus goodie
Trachinotus carolinus
Sciaenops ocellata
Scomberomorus maculates
Lactohrys trigonus

Sharks

Black Tip
Bonnethead
Dusky
Smooth Hammerhead

Carcharhinus limbatus
Sphyrna tiburo
Carcharhinus obscurus
Sphyrna zygaena